

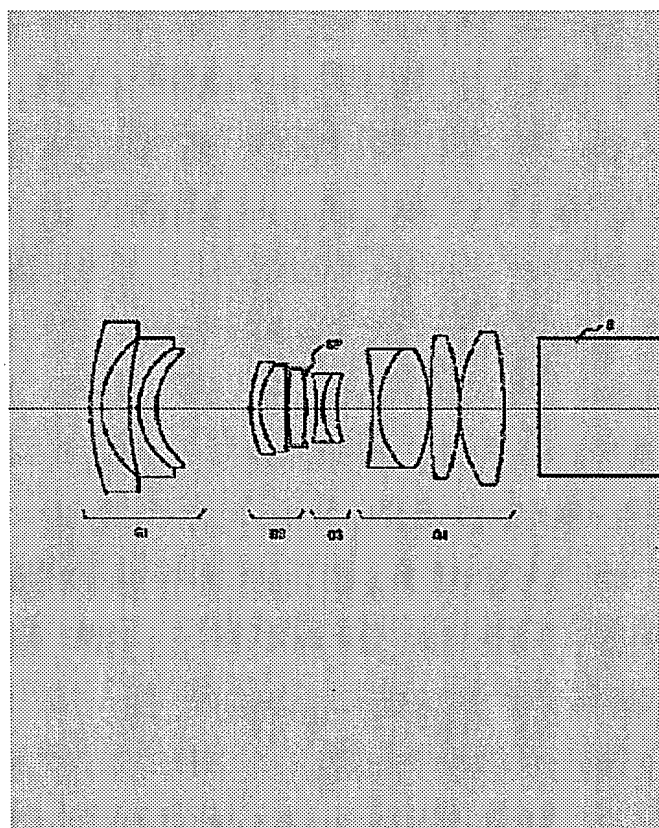
ZOOM LENS AND PROJECTION DISPLAY DEVICE WITH IT

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- international: G02B15/167; G02B13/18
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Abstract of JP2001249275

PROBLEM TO BE SOLVED: To provide a three-plate system color projector wide-angle zoom lens which is telecentric on a liquid crystal display element side, having a long back focus, having a bright F-number, whose 100-inch projection distance is almost as long as 2.5 m on a short focus side, while having good aberration characteristics, a high contrast and high resolution image forming performance. **SOLUTION:** The zoom lens is provided with a 1st lens group whose refractive power is negative, a 2nd lens group whose refractive power is positive, a 3rd lens group whose refractive power is negative and a 4th lens group whose refractive power is positive, in order from an enlargement side. The power is varied by moving the 2nd lens group and the 3rd lens group in the optical axis direction, and the 1st lens group is provided with at least one aspherical lens.



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